ORDINANCE _____

AN ORDINANCE relating to the Seattle Steam Engineer and Boiler Fireman License Law, Seattle Municipal Code, Chapter 6.230, adding to and amending Section 6.230.030 relating to definitions; amending Section 6.230.040 relating to required licenses and license renewal and inspection; amending Section 6.230.045 relating to periodic refresher training; amending Section 6.230.050 relating to exemptions from license requirements; amending Section 6.230.060 relating to grades of license; repealing Section 6.230.090 relating to examination fees for licensing; amending Section 6.230.100 relating to departmental authority; and amending Section 6.230.180 relating to enforcement and filing charges.

Section 1. Seattle Municipal Code Section 6.230.030, which section was adopted by Ordinance 118049 and amended by Ordinance 118659, is amended as follows:

6.230.030 Definitions.

Words and phrases used in this chapter relating to the regulation and licensing of steam engineers and boiler firemen shall have the following meanings:

"Automatic boiler" means a boiler equipped with certain controls and limit devices as required by the Boiler Code, and for which an automatic certification permit has been finalized.

"Boiler" ((~~means a~~)) is a closed vessel ((~~used for heating water or other liquid or for generating steam or vapor by direct application of heat from combustible fuels or electricity~~)) in which water is heated, steam is generated, steam is superheated, or any combination thereof, under pressure or vacuum by the direct application of heat. The term boiler shall also include fired units for heating or vaporizing liquids other than water where these systems are complete within themselves.

* * *

"Department" means the Department of Design, Construction and Land Use.

"Director" means the Director of the Department of Design, Construction and Land Use.

* * *

"Hot-water supply boiler" is a boiler having a volume exceeding one hundred twenty (120) gallons, or a heat input exceeding two hundred thousand (200,000) BTU per hour or ((~~an operating~~)) water temperature exceeding two hundred ten (210) degrees F, but not exceeding a temperature ((~~not exceeding~~)) of two hundred fifty (250) degrees F or a pressure ((~~not exceeding~~)) of one hundred sixty (160) psi, that provides hot water to be used externally to itself.

"kBtuh" means thousand BTU per hour.

"Low-pressure hot-water heating boiler" ((~~means~~)) is a boiler ((~~in~~)) from which hot water is ((~~heated~~)) circulated for heating purposes at pressures not exceeding one hundred sixty (160) psi and temperatures not exceeding two hundred fifty (250) degrees F, that provides hot water to be used externally to itself.

"Low-pressure steam-heating boiler" ((~~means~~)) is a boiler ((~~operated~~)) furnishing steam at pressures not exceeding fifteen (15) psi ((~~for steam~~)).

* * *

"Non-regenerative system" is a system in which the heat rejected by an engine is lost to the atmosphere.

"Out of Service." A boiler shall be "out of service" if it is manually shut down for inspection, maintenance, or repair, except for limited repairs and adjustments as set forth in Section 6.230.150D.

"Power hot-water boiler" (high-temperature water boiler) ((~~means~~)) is a boiler used for heating water or liquid to a pressure exceeding one hundred sixty (160) psi or to a temperature exceeding two hundred fifty (250) degrees F.

"Power steam boiler" ((~~means~~)) is a boiler in which steam or other vapor is generated at pressures exceeding fifteen (15) psi. For purposes of this chapter the term shall not include a small power boiler.

"psi" means pounds per square inch.

"Regenerative system" is a system in which the heat rejected by an engine is used in a boiler.

"Small power boiler" ((~~means~~)) is a power steam boiler with pressures ((~~exceeding fifteen (15) psi but~~)) not exceeding one hundred fifty (150) psi and not exceeding eight hundred thousand (800,000) BTU per hour heat input.

* * *

"Potable water heater" ((~~means a~~)) (fired, electric, solar, and indirect) are closed vessels ((~~used for heating water by direct application of heat from combustible fuels or electricity with~~)) in which water is heated by the combustion of fuels, electricity, or any other source, and withdrawn for use external to the system, and which do not exceed any of the following criteria: a nominal water-containing capacity of one hundred twenty (120) gallons ((~~or less having~~)), a heat input ((~~not exceeding~~)) of two hundred thousand (200,000) BTU per hour

((~~and~~)), an operating temperature ((~~not exceeding~~)) of two hundred ten (210) degrees F, and a pressure of 160 psi.

Section 2. Seattle Municipal Code Section 6.230.040, which section was adopted by Ordinance 111301 and amended by Ordinances 117169, 117864, and 118659, is amended as follows:

6.230.040 License required -- Renewal and expiration.

It is unlawful to have charge of, or operate or permit anyone to have charge of, or operate, any boiler or steam engine without a license to do so issued by the Director ((~~or his or her functional predecessor~~)) under this chapter. All licenses shall expire at midnight on the thirtieth day of September of each year, and shall not be transferred or assigned. All renewals shall specify the same grade and be subject to such conditions or limitations as may be provided under the license to be renewed. Licensed persons desiring a renewal must also meet the requirements of Section 6.230.045.

Renewal of a license which has been expired for more than one (1) year requires the holder to attend an approved refresher course as described in Section 6.230.045.

Section 3. Seattle Municipal Code Section 6.230.045, which section was adopted by Ordinance 118659, is amended as follows:

6.230.045 Periodic refresher training required.

((~~Beginning January 1, 1998, a~~)) All persons licensed by the department must attend an approved refresher course every five years. A document indicating proof of completion of the approved refresher course shall be provided to the Department.

Section 4. Seattle Municipal Code Section 6.230.040, which section was adopted by Ordinance 111301 and amended by Ordinances 113757 and 117864, is amended as follows:

6.230.050 Exemptions from license requirements.

A steam engineer's or boiler fireman's license shall not be required of any person in charge of, or operating, the following:

A. Any boiler or steam engine subject to federal regulations;

B. Any boiler not subject to reinspection by the Boiler Code;

C. Low-pressure hot water, low-pressure steam and hot-water supply boiler plants having inputs of less than two million five hundred thousand (2,500,000) BTU per hour;

D. Any boiler having an input of less than one hundred thousand (100,000) BTU per hour and a maximum pressure of one hundred (100) pounds per square inch or less;

E. Potable Water heaters.

Section 5. Seattle Municipal Code Section 6.230.060, which section was adopted by Ordinance 111301 and amended by Ordinances 113757, 117864, 118049, and 118659, is amended as follows:

6.230.060 Grades of licenses.

A. The grades of steam engineers' and boiler firemen's licenses shall be as follows:
Grade I Boiler Supervisor,
Grade II Boiler Supervisor,
Grade III Boiler Supervisor,
Grade I Steam Engineer,
Grade II Steam Engineer,
Grade III Steam Engineer,
Grade IV Boiler Fireman,
Small Power Boiler Fireman,
Grade V Boiler Fireman.

B. The minimum requirements for operation of each type and capacity of equipment are as set forth in the following table.

TABLE A (POWER BOILERS / STEAM ENGINES)			
Category	**Type / Limitations[4]**	**Minimum License Required**	**Notes**
All Boilers	((~~Less than~~)) Not exceeding 100 psi and less than 100 kBtuh input	None	
Electric Boilers	((~~Less than~~)) Not exceeding 1.5 cubic ft and 80 psi	None	
Electric Boilers	((~~Less than~~)) Not exceeding 100 psi and 200 kw	Grade V Boiler Fireman on premises	1
All Boilers (except Small Power Boilers)	Each less than 1,000 kBtuh input, equipped per Table 320-A of the Boiler Code but not certified as Automatic. Steam boilers on same header: 2 maximum	Two hour checks by a Grade IV Boiler Fireman	2
Small Power Boilers	Maximum 800 kBtuh input, equipped per Table 320-A of the Boiler Code but not certified as Automatic. Steam boilers on same header: 2 maximum	Semiannual check by a Boiler Supervisor and twice daily checks by a Small Power Boiler Fireman or a Small Power Boiler Fireman on premises	3
All other Small Power Boilers	Maximum 800 kBtuh input. Steam boilers on same header: 2 maximum	Small Power Boiler Fireman on premises	3
Boilers certified as Automatic	Maximum 20,000 kBtuh input((~~,~~)). Steam boilers on same header: 2 maximum	Two hour checks by a Grade IV Boiler Fireman	2
Boilers certified as Automatic	Maximum 50,000 kBtuh input((~~,~~)). No limitation on number of boilers on same header	Two hour checks by a Grade III Steam Engineer	
Boilers certified as Automatic	Maximum 300,000 kBtuh input((~~,~~)). No limitation on number of boilers on same header	Two hour checks by a Grade II Steam Engineer	
Boilers certified as Automatic	Unlimited input	Two hour checks by a Grade I Steam Engineer	
Boilers certified as Monitored	Maximum 20,000 kBtuh input((~~,~~)). Steam boilers on same header: 2 maximum	Monthly checks by a Boiler Supervisor and twice daily checks by a Grade IV Boiler Fireman	2
Boilers certified as Monitored	Maximum 50,000 kBtuh input((~~,~~)). No limitations for boilers on same header	Monthly checks by a Boiler Supervisor and twice daily checks by a Grade III Steam Engineer	
Boilers certified as Monitored	Maximum 300,000 kBtuh input((~~,~~)). No limitations for boilers on same header	Monthly checks by a Grade II Boiler Supervisor and twice daily checks by a Grade II Steam Engineer	6
Boilers certified as Monitored	Unlimited input	Monthly checks by a Grade I Boiler Supervisor and twice daily checks by a Grade I Steam Engineer	6
All other boilers	Maximum 20,000 kBtuh input((~~,~~)). Steam boilers on same header: 2 maximum	Constant attendance by a Grade IV Boiler Fireman	2
All other boilers	Maximum 50,000 kBtuh input((~~,~~)). No limitations for boilers on same header	Constant attendance by a Grade III Steam Engineer	
All other boilers	Maximum 300,000 kBtuh input((~~,~~)). No limitations for boilers on same header	Constant attendance by a Grade II Steam Engineer	
All other boilers	Unlimited input	Constant attendance by a Grade I Steam Engineer	
Steam engines	Maximum 250 bhp	Constant attendance by a Grade III Steam Engineer	
Steam engines	Maximum 1,500 bhp	Constant attendance by a Grade II Steam Engineer	
Steam engines	Unlimited	Constant attendance by a Grade I Steam Engineer	

TABLE B (LOW PRESSURE BOILERS)			
Category	**Type / Limitations[4]**	**Minimum License Required**	**Notes**
All boilers	Less than 2,500 kBtuh input	No license required	
Boilers certified as Automatic	Maximum input 5,000 kBtuh	Monthly checks by a Boiler Supervisor, or quarterly checks by a Boiler Supervisor and twice daily checks by a Grade V Boiler Fireman, or a Grade V Boiler Fireman on premises	1
Boilers certified as Automatic	Maximum input exceeds 5,000 kBtuh but does not exceed 20,000 kBtuh. Steam boilers on same header: 2 maximum	Quarterly checks by a Boiler Supervisor and twice daily checks by a Grade IV Boiler Fireman	2
Boilers certified as Automatic	Maximum input exceeds 20,000 kBtuh but does not exceed 50,000 kBtuh. No limitation on boilers on same header	Quarterly checks by a Boiler Supervisor and twice daily checks by a Grade III Steam Engineer	
Boilers certified as Automatic	Maximum input exceeds 50,000 kBtuh but does not exceed 300,000 kBtuh. No limitation on boilers on same header	Quarterly checks by a Grade II Boiler Supervisor and twice daily checks by a Grade II Boiler Supervisor	
Boilers certified as Automatic	Maximum input exceeds 300,000 kBtuh. No limitation on boilers on same header	Quarterly checks by a Grade I Boiler Supervisor and twice daily checks by a Grade I Steam Engineer	
Boilers certified as Monitored	Maximum input exceeds 5,000 kBtuh but does not exceed 20,000 kBtuh. Steam boilers on same header: 2 maximum	Semiannual checks by a Boiler Supervisor and twice daily checks by a Grade IV Boiler Fireman	2
Boilers certified as Monitored	Maximum input exceeds 20,000 kBtuh but does not exceed 50,000 kBtuh. No limitation on boilers on same header	Semiannual checks by a Boiler Supervisor and twice daily checks by a Grade III Steam Engineer	
Boilers certified as Monitored	Maximum input exceeds 50,000 kBtuh but does not exceed 300,000 kBtuh. No limitation on boilers on same header	Semiannual checks by a Grade II Boiler Supervisor and twice daily checks by a Grade II Steam Engineer	6
Boilers certified as Monitored	Maximum input exceeds 300,000 kBtuh. No limitation on boilers on same header	Semiannual checks by a Grade I Boiler Supervisor and twice daily checks by a Grade I Steam Engineer	6
All other boilers	Maximum input exceeds 2,500 kBtuh but does not exceed 5,000 kBtuh	Grade V Boiler Fireman on premises	5
All other boilers	Maximum input exceeds 5,000 kBtuh but does not exceed 20,000 kBtuh. Steam boilers on same header: 2 maximum	Constant attendance by a Grade IV Boiler Fireman	2
All other boilers	Maximum input exceeds 20,000 kBtuh but does not exceed 50,000 kBtuh. No limitation on boilers on same header	Constant attendance by a Grade III Steam Engineer	
All other boilers	Maximum input exceeds 50,000 kBtuh but does not exceed 300,000 kBtuh. No limitation on boilers on same header	Constant attendance by a Grade II Steam Engineer	
All other boilers	Maximum input exceeds 300,000 kBtuh. No limitation on boilers on same header	Constant attendance by a Grade I Steam Engineer	

Footnotes to Tables A and B:

1. A Grade V Boiler Fireman can also operate a low-pressure boiler up to 5,000 kBtuh. A Grade V Boiler Fireman cannot operate steam boilers in battery.

2. A Grade IV Boiler Fireman may operate a battery of not more than two steam or vapor boilers with a combined capacity no greater than 20,000 kBtuh total input; except when he/she is the head fireman on duty and under the direct (on site) supervision of a licensed steam engineer hereunder, he/she may operate a greater number of boilers, or boilers with greater capacity, for the purpose of training but not to exceed the capacity permitted by the license of such supervising engineer.

3. A Small Power Boiler Fireman license shall permit the licensee to operate no more than two small power boilers subject to the limitation in Table A.

4. For license determination purposes, kBtuh, bhp, or KW input ratings of a boiler shall be computed as follows:

a. ((~~As~~)) Equal to burner input as rated and labeled by the burner manufacturer for gas, propane, and similar burners. Where actual fuel flow during burner operation at the maximum firing rate can be reliably measured, the burner input may be computed by such method;

b. ((~~As~~)) Equal to the gallons-per-hour rating of the fuel nozzle or nozzles for oil burners;

c. ((~~As~~)) Equal to the electrical input in KW as rated and labeled by the boiler manufacturer for electric boilers;

d. ((~~As~~)) The greater of all computed inputs in the case of multiple fuel burners;

e. ((~~As~~)) The cumulative input, as measured in a, b, c, or d above, for boilers in battery (connected to a common header). For boilers in battery so wired electrically such that only a single boiler can operate at a given time, the license requirement for such battery shall be determined by the most restrictive individual license requirement for any boiler in the battery.

f. The bhp of the prime mover (gas turbine, engine, etc.) in a regenerative system will determine the grade for downstream recovery boilers and steam turbines. Non-regenerative gas turbines are not covered by this ordinance.

5. A Grade V Boiler Fireman can also operate an electric boiler less than 100 psi and 200 kw. A Grade V Boiler Fireman cannot operate steam boilers in battery.

6. A Grade III Steam Engineer can attend to Grade II monitored boilers and a Grade II Steam Engineer can attend to Grade I boilers when such boilers are checked weekly by a Boiler Supervisor.

Section 6. Seattle Municipal Code Section 6.230.070, which section was adopted by Ordinance 111301 and amended by Ordinances 114425, 116368, 117169, 117864, 118049, 118398, and 118659 is amended as follows:

SMC 6.230.070 Issuance of licenses.

Persons desiring a license described in Section 6.230.060 shall make written application to the Department on the forms provided by the Department. Such application shall include the applicant's full name and address. Applications shall be accompanied by a receipt showing payment of the required examination fee as provided under Chapter 22.901J.

A. Applicants for a steam engineer's license, Grade I, II, or III shall show to the satisfaction of the Director one (1) of the following:

1. That ((~~he/she~~)) the applicant has been employed at least three (3) years in a position directly responsible for the ((~~care and~~)) operation of boilers ((~~or steam engines, or in the design or supervision of boilers, boiler systems, boiler firing and automatic control and safety systems~~)), or under the direct supervision of a licensed steam engineer, Grade I, II or III((~~;~~)). Applicants wishing to obtain a license without a "BOILER ONLY" limitation must prove that at least one year of that experience was in the operation of steam engines. Or

2. ((~~That he/she has at least three (3) years of practical experience as a machinist apprentice in a steam engine works together with one (1) year of employment in the direct care and operation of boilers and steam engines; or~~

~~3.~~)) That ((~~he/she~~)) the applicant has graduated from a recognized school of technology with a Steam Licensing Advisory Board approved curriculum, and has ((~~had~~)) been employed at least one (1) year ((~~of employment in the direct care and~~)) in a position directly responsible for the operation of boilers ((~~and steam engines~~)), or under the direct supervision of a licensed steam engineer, Grade I, II, or III. Candidates wishing to obtain a license without a "BOILER ONLY" limitation must, in addition, prove at least one year of experience in the operation of steam engines.

Completion of a course as described in subsection C2 of this section below((~~, approved by the Department or its functional predecessor~~)) shall be the equivalent of one (1) year of ((~~practical~~)) boiler operating experience under subsections A1 ((~~or~~)) and A2 above((~~,~~)). However, each applicant will be entitled to only one (1) such credit.

B. Any licensed Grade I, II, or III steam engineer with at least three years experience in his or her category may apply for an upgrade to Boiler Supervisor, Grade I, II, or III. ((~~Such applicant shall show to the satisfaction of the Director that he/she has been employed at least three (3) years in one (1) of the following:~~

~~1. In a position directly responsible for the care or operation of boilers, or steam engines;~~

~~2. In the design or supervision of boilers, boiler systems, boiler firing, and automatic control and safety systems;~~

~~3. In the direct supervision of a licensed Grade I, II or III steam engineer.~~))

* * *

Section 7. Seattle Municipal Code Section 6.230.100, which section was adopted by Ordinance 111301 and amended by Ordinances 117169 and 117864, is amended as follows:

6.230.100 Departmental authority.

A. In connection with the regulation and licensing of steam engineers and boiler firemen, the Department is authorized to perform the following:

1. Provide qualifying examinations for persons applying for steam engineer or boiler fireman licenses under this chapter. Such examinations shall be practical in their character and shall relate to those matters ((~~which~~)) that will fairly test the minimum capacity, skill, experience, and ((~~habits of sobriety~~)) competence of each person examined to safely operate and properly care for a boiler and/or steam engine, within the scope of the license sought;

2. Provide additional qualifying examinations for persons applying for a Boiler Supervisor Grade I, II, or III license. Such examination shall be practical in character and shall relate to those matters ((~~which~~)) that will fairly test the applicant's minimum capacity, skill, experience, and ((~~habits of sobriety~~)) competence to safely use, operate, and maintain boilers and automatic or monitored boilers under applicable City and state regulations;

3. When approving any license under this chapter, the Director may impose stated conditions or limitations to such license restricting the licensee to the operation and maintenance of particular equipment at a stated location, or to the operation and maintenance of a certain class of boilers or steam engines, or to specified permitted services in connection with the operation and maintenance of boilers and steam engines. Such restrictions shall be based upon the applicant's qualifications under this chapter and be reasonably related to the protection of the public in the safe operation and maintenance of boilers and steam engines.

* * *

Section 8. Seattle Municipal Code Section 6.230.180, which section was adopted by Ordinance 111301 and amended by Ordinance 117169, is amended as follows:

6.230.180 Enforcement -- Filing of charges.

A. The Director of the Department of Design, Construction and Land Use shall enforce this chapter and in such connection is authorized to promulgate rules and regulations as may be deemed necessary to provide the means for ensuring safe and proper installation, repair, use and operation of boilers and steam engines.

B. All charges against any person licensed under the provisions of this chapter shall be filed in writing with the Department.

Section 9. This ordinance shall take effect and be in force thirty (30) days from and after its approval by the Mayor, but if not approved and returned by the Mayor within ten

(10) days after presentation, it shall take effect as provided by Seattle Municipal Code Section 1.04.020.

Passed by the City Council the _____ day of _____, 2000, and signed by me in open session in authentication of its passage this _____ day of _____, 2000

_____
President _____ of the City Council

Approved by me this ____ day of _____, 2000.

_____
Paul Schell, Mayor

Filed by me this _____ day of _____, 2000.

_____
City Clerk

(SEAL)